

STUDY THE OPINION OF PHARMACY STUDENTS ON ELECTRONIC LEARNING IN MOODLE

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Abstract: E-learning meets the new educational needs arising from the transition from industrial to information society and is associated with changes in all aspects of the educational process. The implementation of e-learning cannot be reduced only to the use of information and communication technologies in the current educational system and by no means only to bringing the existing educational content to electronic format. Moodle is a Learning Management System (LMS) designed to help teachers. LMS is built on the idea that online learning should focus on opportunities that would be useful for learners - communicating with their students, teachers should create content that meets their needs and desires. It is designed to support both teaching and learning.

The Moodle platform started in 2011 at the site of Medical College, Medical University of Plovdiv, Bulgaria the same year the lecture course for teachers was held. Students register and have access to the platform as early as in the first year of IT training. Today, there are over 1,000 active users and 22 electronic courses, the platform is growing, showing interest and relevance. In 2016, an e-learning course was created for the discipline of Medical Devices to support the exercises of student assistant pharmacists.

The aim of survey is to study the students' opinion of the need and benefits of e-learning for the discipline „Medical devices“. Second aim is to promote the e-learning platform among teachers and students from all universities. The study was conducted at the end of the winter semester of the 2017/2018 academic year, with 37 students from the 2nd course, specialty Assistant Pharmacist at Medical College, Medical University of Plovdiv. The method of a semi-structured interview with open questions is used and a statistical method.

The opinion of the students in open questions show more an evaluation of the training method than to evaluate the content of the particular course. They highlight the benefits of e-learning as a quick and convenient access to materials. The effective communication with the lecturer is also highly appreciated. The students think that particular course makes it easier in finding related information through the links to the topics. The Electronic Course of discipline of Medical Devices helps them to visualize the details of individual topics.

Conclusions indicate that the on-line course in the platform makes it easier assimilation of knowledge and the links to main topics increase the opportunities for overall enrichment and the links pointing to the separate units increase the possibilities for complete enrichment. Students approve the electronic form of learning and communication.

Keywords: electronic learning, pharmacy students, Medical devices, Moodle platform

INTRODUCTION

Moodle is a Learning Management System (LMS) designed to help teachers. The LMS builds on the idea that online learning should focus on opportunities that would be useful for learners - communicating with their students, teachers should create content that meets their needs and desires [1].

E-learning meets the new educational needs arising from the transition from industrial to information society and is associated with changes in all aspects of the educational process. The implementation of e-learning cannot be reduced only to the use of information and communication technologies in the current educational system and by no means only to bringing the existing educational content to electronic format [2].

The frequency of computer usage for everyday tasks and for help with the academic preparation is high. Having in mind the high activity in using technologies for studying, demonstrated by our students, we have a reason to believe that they make an effective use of quality e-learning content if it is available. Appropriate e-learning subject content should be developed to a greater extent, because students have habits and skills to study using modern computer technologies [3].

Changes will affect the logistics of the educational process on the one hand: transfer of daily use of technology for communication, information management, working with documents and presentations in higher education. Technology allows easy access to resources, sharing and collaboration, regardless of time and distance. This inevitably leads to our students' expectations that these facilities can equally well be used for training purposes. On the other hand, the changes lead to new training methods, particularly to a new pedagogical approach in which students find or create resources to share with colleagues and which resources can be used to expand the content of the course. This new pedagogy, born of technology, requires the active participation and contribution to the course, both from the teachers and the students themselves [2].

The work of the students in the electronic system leads to self-sufficiency and profound work. In a study of Kasnakova et al the obtained results confirmed the positive attitude of the students towards the importance of the independent work (over 88, 02%), which according to their opinion would lead to increase in the theoretical knowledge, improvement of the practical skills needed for their further professional development and will provide them with bigger independence [4].

The quality of healthcare today strongly depends on the professional, moral and ethical training of students in medical specialties today. Therefore is necessary for the teachers in medical universities to pay special attention to the quality of medical training in order to prepare future medical specialists for the challenges and requirements of modern times. With the introduction of information and communication technologies in healthcare, it is absolutely necessary to offer flexible and modern training to health professionals. The search for new approaches to teaching and learning will lead to a new model of education that responds appropriately to the contemporary dynamic reality [5].

PURPOSE

The aim of survey is to study the students' opinion of the need and benefits of e-learning for the discipline „Medical devices“. Second aim is to promote the e-learning platform among teachers and students from all universities.

MATERIAL AND METHODS

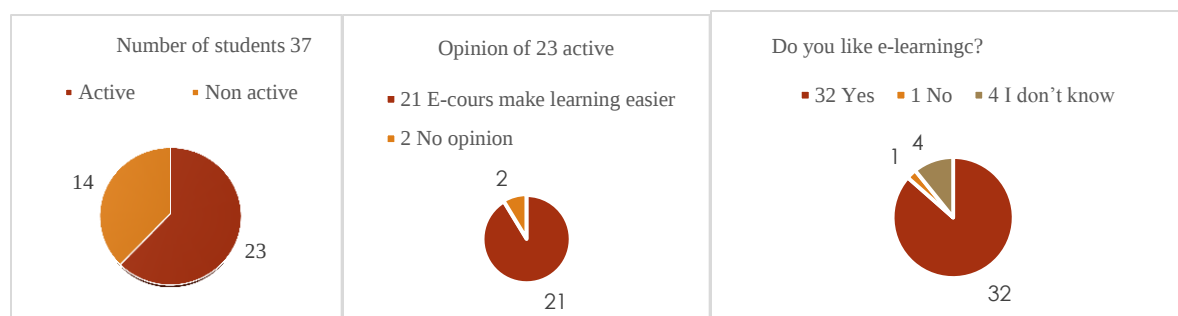
For the purpose of the study are used sociological methods – method of a semi-structured interview with open questions and statistical methods – statistical analysis, descriptive statistics, chi-squared test.

The study was conducted at the end of the winter semester of the 2017/2018 academic year, participants are 37 students from the 2-nd grade, specialty Assistant Pharmacist at Medical College, Medical University of Plovdiv. All of them study subject “Medical Devices” in this course and all of them are registered in the Moodle platform while they were first course during their "Informatics" exercises.

RESULTS AND DISCUSSION

In 2016, an e-learning course on “Medical Devices” discipline was created at the e-learning site of Medical College <http://eomk.medcollege-plovdiv.org>, which uses the web-based open source Management System Moodle. The course aims to assist Assistant Pharmacist students in the “Medical Devices” discipline by introducing the theme topics developed as PowerPoint presentations on a weekly schedule as well as links to sites related to additional topics.

All 37 students in the survey were registered as an users in the on-line course. Of these, 23 students were active participants who have entered in to the system and have read the materials, and the other 14 were not active as there was no entry into the system. Whether the participants are active, the trainer understands from the system profile that shows who participates when and how many times they enter the course. There is also a blog to the course where information can be exchanged between the lecturer and the participants. Active participants can ask the teacher questions and receive answers as well as he can ask them additional tasks. Tests or tasks can be evaluated. From the 23 active students 21 think that e-cours makes learning easier. The Medical Devices discipline has a lot of visual material, and the e-course helps students to learn better and easier as can work in the system at any time. A large number of participants approve e-learning as 32 students responded positively to this question from the survey.



The opinion of the students in open questions show more an evaluation of the training method than to evaluate the content of the particular course. They highlight the benefits of e-learning as a quick and convenient access to materials. The effective communication with the lecturer is also highly appreciated. The students think that particular course makes it easier in finding related information through the links to the topics. The Electronic Course of discipline of Medical Devices helps them to visualize the details of individual topics.

The feedback process with students will lead to a faster analysis of the results, making adequate management decisions in order to achieve the ultimate goal – improving the quality of higher education [6].

Students evaluate highly e-learning and we must use these advanced methods of teaching, but we must not forget the traditional methods. E-learning is not and can not be a substitute for traditional training in healthcare and pharmacy specialties but it is helpful and has its proper place. Applying methods for the development and deployment of electronic forms of training, in line with established curricula, can help to create modern, effective and quality training. [7]

Quality education is the responsibility of all participants - lecturers, students, institution management, as the ultimate goal is to improve the quality of healthcare. [8]

CONCLUSIONS

Conclusions indicate that the students approve the electronic form of learning and communication.

On-line course in the platform makes it easier assimilation of knowledge and the links pointing to the separate units increase the possibilities for complete enrichment. The on-line Medical Devices course in the platform facilitates knowledge acquisition and the links to main topics increase the opportunities for overall enrichment.

Improving existing and developing new e-courses should be encouraged.

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